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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,729	10/22/2003	Adam D. Pratt	SHXP101US	2728

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EXAMINER

MITCHELL, KATHERINE W

ART UNIT PAPER NUMBER

3677

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/605,729	Applicant(s) PRATT	
	Examiner Katherine W. Mitchell	Art Unit 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 2-6, 9-15 and 18-25 is/are pending in the application.
- 4a) Of the above claim(s) 5, 9-11 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-4, 6, 12-15, 18-20 and 22-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

The request filed on Feb 13, 2006 for a Request for Continuing Examination (RCE) under 37 CFR 1.114 is acceptable and an RCE has been established. Any previous finality is hereby withdrawn and a new action on the merits follows. Any newly-submitted claims have been added. An action on the RCE follows. Note that the drawing and new matter objections and 112 2<sup>nd</sup> rejections have been cancelled in light of the amendment.

### ***Claim Objections***

Claims 5, 9-11, and 21 are objected to because of the following informalities: they depend on a cancelled claim. Although withdrawn, they cannot depend on a cancelled claim. They are considered cancelled. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

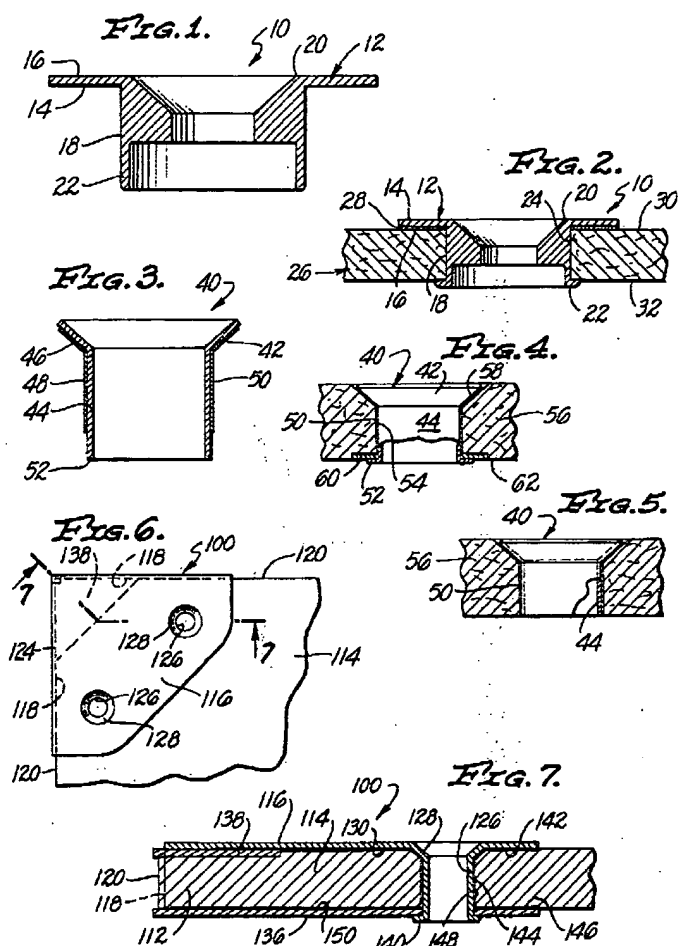
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 25, 2-4, 12, 14, 15, 20, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Worthing USP 4010519.

Re claim 25, 2-4, 15, 20, and 24: Worthing shows a fastener including a threaded insert (Figs 1-2 or Figs 3-5 or Fig 7), with an inner surface, an outer surface, a flange, and at least a portion of the flange has adhesive thereon, (Best seen in Fig 3 -

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note adhesive 50 is on shank and flange of Fig 7 - adhesive 142, 144, 146 - see col 4 lines 1-30). Note that parts 22, 52, or 140 including the outer surface respectively operatively expand. (see Figures below)



The adhesive forms a strip per the figures. It covers the flange. The fastener has a substantially circular cross section. Note dashed lines in Fig 5 representing threads, also stated as a feature in col 3 lines 1-5 so that a bolt (stud) can be threaded into it. The end is open. Epoxy is taught in col 5 lines 44-50, and if epoxy is a threadlocking composition, then a threadlocking composition is inherently also taught.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 13 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Worthing.

As discussed above, Worthing teaches the claimed invention, but is not specific on various adhesives. Col 5 lines 45-50 are specific that a large number of adhesives can be used with the invention. Numerous different adhesives are readily available for specific applications, and would be easily selected based on materials and usage.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Worthing and common knowledge in the art before him at the time the invention was made, to modify Worthing to include applying known adhesives, not just thermoplastic resin adhesives, including threadlocking compounds, microencapsulated adhesives, or methacrylate ester, to the fastener outer surface, in order to obtain a fastener with adhesive that minimized labor and were well-known, inexpensive, and durable.

Further, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have used specific adhesives known in the art, including a microencapsulated adhesive, a threadlock, or methacrylate ester since it has been held to be within the general skill of a worker in the art to select a known material

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on the basis of its suitability for the intended use as a matter of matching the selection to the application based on engineering criteria. *In re Leshin*, 125 USPQ 416.

*Examiner also notes that applicant has admitted in paragraph [0040] of the specification that any adhesive known in the art can be used, including the microencapsulated adhesives.*

5. Claims 12- 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Worthing USP 5082405 in view of Locktite Product 204 Product Description Sheet as cited by applicant, hereafter called Locktite 204. As discussed above, Worthing teaches the claimed invention, but is not specific on various adhesives. Col 5 lines 45-50 are specific that a large number of adhesives can be used with the invention. Numerous different adhesives are readily available for specific applications, and would be easily selected based on materials and usage.

Locktite 204 teaches that threadlocking adhesive can be applied to engineering parts including fasteners, prior to the installation process of the fastener, in "Product Description" - it is pre-applied and remains inert on the fastener until the assembly of the threads releases the methacrylate ester {Properties of Uncured material} resin.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Worthing and Locktite 204 before him at the time the invention was made, to modify Worthing as taught by Locktite 204 to include applying an adhesive, including a threadlocking composition or methacrylate ester, to the fastener outer surface, in order to obtain a fastener with adhesive that minimized labor and were well-known, inexpensive, and durable.

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Further, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have used specific adhesives known in the art, including a threadlocking agent such as methacrylate ester since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of matching the selection to the application based on engineering criteria. *In re Leshin*, 125 USPQ 416. Locktite 204 specifically teaches that it is designed for use with threaded assemblies, including bolts, screws, nuts, pipe plugs and fittings, and thus there is no inventive step in using Locktite 204 with various threaded assemblies.

6. Claims 6, 18, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Worthing in view of Heminger USP 5733083.

As discussed above, Worthing teaches the claimed invention, but does not specify that the flange comprises a knurled portion with adhesive. Heminger teaches that knurling is used to increase the surface area in contact with the adhesive, and thus improve adhesion to the fastener body, and knurling resists rotation when the fastener inserted in a hole, in col 7 lines 4-13 and 43-53. Ridges 32 are shown in the Figures.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Worthing and Heminger before him at the time the invention was made, to modify Worthing as taught by Heminger to include a ridge or knurling the surface, including the flange, and applying an adhesive, in order to obtain a fastener likely to adhere well to the adhesive layer. One would have been motivated to make such a combination because threads and ridges along the body would serve as "grippers", but

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the flange would need knurling or other roughening to best ensure that the adhesive would grip the flange.

7. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Worthing.

As discussed above, Worthing teaches the claimed invention, but does not show an insert with a closed end. Examiner takes Official Notice that threaded inserts with closed ends are notoriously well-known in the art, and that applicant is claiming all possibilities, open and closed ends, which were not restricted as separate species due to the widespread knowledge of the obvious alternatives.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Worthing and common knowledge in the art before him at the time the invention was made, to modify Worthing to include a closed end, in order to obtain a fastener where the stud would be protected from the environment, or where attachment would benefit from having a folded-over type expansion engagement for strength, such as in USP 2398578, 3772957, 3213746, or 4826372.

### ***Response to Arguments***

8. Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection. The expandable outer surface is now shown in Worthing.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



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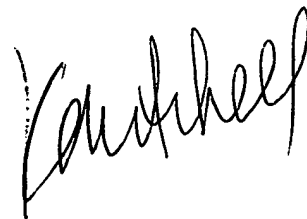
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 571-272-7069. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Katherine W Mitchell  
Primary Examiner  
Art Unit 3677

Kwm  
3/30/2006

A handwritten signature in black ink, appearing to read 'K. Mitchell', is written over the printed name and title of the examiner.